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OVERVIEW OF SUPPORTED EMPLOYMENT

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This article traces the emergence of supported employment as a result of philosophical changes in expectations for persons with disabilities, based on scientific developments that challenged traditional service-delivery models. Supported employment program characteristics also are reviewed, and the influence of applied behavior analysis is outlined. Finally, areas for future research in supported employment are discussed.

DESCRIPTORS: supported employment, competitive employment, integration, generalization, maintenance, social validation

Fairly recently, a new vocational opportunity has emerged for persons with severe disabilities. Supported employment, with its focus on facilitating successful participation in integrated work settings, provides an alternative to the sheltered workshop service-delivery model (Bellamy, Rhodes, Bourbeau, & Mank, 1986; Rusch, in press; Wehman & Moon, 1988). Supported employment offers occupational choices to persons who traditionally have been considered unemployable in the competitive labor market, including individuals with mental retardation (Bates, 1986; Rusch & Menchetti, 1981; Vogelsberg & Richard, 1988; Wehman, 1986), autism (McCarthy, Fender, & Fender, 1988; Wehman & Kregel, 1985), physical disabilities (Wood, 1988), and psychiatric disorders (Anthony & Blanch, 1987). Supported employment has emerged in response to the exclusion of many individuals with disabilities from our nation's work force and the failure of the adult service system to prepare these individuals for integrated employment. According to the Developmental Disabilities Act of 1984, *supported employment* is:

> Paid employment which (i) is for persons with developmental disabilities for whom competitive employment at or above the minimum wage is unlikely and who, because of their disabilities, need ongoing support to perform in a work setting; (ii) is conducted in a variety of settings, particularly work sites in which persons without disabilities are employed; and (iii) is supported by any activity needed to sustain paid work by persons with disabilities, including supervision, training, and transportation. (*Federal Register,* 1984)

The Developmental Disabilities Act of 1984 is important because it stipulates that the focus of supported employment is *integration* ("competitive employment [at] work sites in which persons without disabilities are employed") with *wages* ("paid work by persons with disabilities") and *support* ("including supervision, training, and transportation"). Subsequent to the Developmental Disabilities Act of 1984, the Rehabilitation Act Amendments of 1986 (P.L. 99-506) set forth regulations to guide the standards for supported employment services and the population to be served.

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Table 1
Supported Employment Outcomes and Minimal Compliance Criteria Among Persons with Severe Handicaps For Whom Employment Has Not Occurred or For Whom Employment Has Been Intermittent or Interrupted

Outcome	Criteria
Competitive work	Averages at least 20 hr per week for each pay period
Integrated work setting	Work group of not more than 8 individuals with handicaps; regular contact with nonhandicapped co-workers
Ongoing support services	Continuous or periodic job skill training provided at least twice monthly at the job site (except for individuals with chronic mental illness)

These amendments defined supported employment as competitive work in an integrated work setting for individuals with severe handicaps for whom competitive employment has not occurred or for whom competitive employment has been interrupted or intermittent. Accordingly, individuals considered eligible for supported employment services are those who cannot function independently in employment without intensive, ongoing support services and who require such ongoing support for the duration of their employment. The regulations also set 20 hours as the minimum number of hours a supported employee may work.

Integrated work settings are defined in the amendments as settings where (a) most co-workers are not handicapped and (b) individuals with handicaps are not a part of a work group consisting only of others with handicaps, or are part of a small work group of not more than 8 individuals with handicaps. Additionally, in settings where there are no co-workers or where the only co-workers are members of a small group of not more than 8 individuals with handicaps, individuals with handicaps must have regular contact with nonhandicapped individuals, other than personnel who provide support services. Finally, the regulations require that supported employees be provided follow-up services at least twice monthly at the job site, except in the case of individuals with chronic mental illness. Table 1 displays the primary outcomes of supported employment and the criteria that regulate acceptance in the rehabilitation community.

In the remainder of this article we will present (a) a rationale for supported employment, (b) the types of placement models developed to date, (c) supported employment program components, (d) research related to supported employment program effectiveness and populations served, (e) the contributions of applied behavior analysis to supported employment, and (f) a discussion of future research areas.

Rationale for Supported Employment

The emergence of supported employment reflects three related historical developments. First, sufficient empirical evidence was accumulated in the 1970s to challenge the prevailing theory that mental retardation is a long-term debilitating condition with poor prognosis for remediation. For example, early studies conducted primarily in segregated sheltered workshop and educational settings demonstrated that individuals with mental retardation could acquire specific job skills (Brown & Pearce, 1970; Brown, Van Deventer, Perlmutter, Jones, & Sontag, 1972; Cohen & Close, 1975; Evans & Spradlin, 1966; Gold, 1973; Gold & Barclay, 1973; Huddle, 1967; Hunter & Bellamy, 1976; Jens & Shores, 1969; Mithaug, 1979; Schroeder, 1972; Wehman, Schutz, Renzaglia, & Karan, 1977; Zimmerman, Overpeck, Eisenberg, & Garlick, 1969). In particular, Crosson (1969), Gold (1972), and Bellamy, Peterson, and Close (1975) provided "illustrations of competence" among persons with mental retardation who learned complex vocational skills. Bellamy, Horner, and Inman (1979) proceeded to develop instructional strategies for individuals with severe mental retardation working in sheltered workshop settings.

Second, toward the end of the 1970s studies of individuals with mental retardation placed in nonsheltered, competitive employment began to appear in the applied literature. These reports reflected the development of alternative employment patterns

for persons with mental retardation. Specifically, Rusch, Connis, and Sowers (1978) reported on an employee who learned to increase her working time in a restaurant; Schutz, Rusch, and Lamson (1979) evaluated the effectiveness of verbal reprimands in reducing verbally abusive statements made by 3 dishwashers; and Rusch (1979) demonstrated the relation between attending to task and completing work assignments (production). Further, Wehman, Hill, and Koehler (1979b) reported case studies of 3 food-service employees who learned to spend more time in the performance of their duties. These studies were important because they set the stage for researchers to identify new goals and to test recently accepted behavioral procedures in the context of integrated work environments.

Third, at the time when illustrations of competence were being conducted in sheltered workshops and segregated educational settings, there was growing recognition that our human service delivery system was "broken." Whitehead (1979) reported that more than 200,000 adults with severe disabilities were being served in sheltered workshops. However, more than 6,000,000 others were not receiving appropriate services, even though numbers of work activity centers grew by over 600% during the period between 1968 and 1977. In the same study, Whitehead (1979) pointed out that the only individuals who attained competitive employment after entering sheltered workshops were those who did not require skill training. In contrast, workers who remained in sheltered workshops and work activity centers were relegated to earning nominal wages for performing available subcontract work.

Gold (1975) pointed out that transition to competitive employment among persons with severe handicaps was "unusual"; in addition, he maintained that the typical sheltered workshop staff lacked knowledge of skills to be trained, how best to train these skills, and how best to structure programs to facilitate progress toward nonsheltered, competitive employment. These allegations came as no surprise because sheltered workshops traditionally rely on staff who have little knowledge about the instructional technology or industrial design necessary to develop an individual's potential for employment (Pomerantz & Marholin, 1977). Based on a review of social and work behavior research reported before 1980, Rusch and Schutz (1981) concluded that the primary method of training in sheltered workshops was "supervision with vague instructions and occasional prompts to stay on task" (p. 287).

The emergence of supported employment was fueled by our dissatisfaction with a mental retardation service system that prepared people for jobs that never materialized (Whitehead, 1979). Although purportedly transitional, existing vocational options (e.g., sheltered workshops, day activities centers, adult day-care centers) resulted in limited movement of clients toward community employment (Bellamy, Rhodes, Mank, & Albin, 1988). Also, growing dissatisfaction was expressed with service options that resulted in institutionalization as the predominant treatment in the 1960s and early 1970s for persons with severe disabilities.

The concept of supported employment was unique by reflecting a reversal in our thinking about mental retardation in two ways. First, supported employment was based on the belief that the issue was not whether or not people with disabilities could perform real work, but what support systems were needed to achieve that goal (Rhodes & Valenta, 1985); second, the concept of supported employment proposed that "warehousing" of persons with handicaps be replaced by the more pragmatic approach of finding a job for the person and then providing the support necessary for successful employment integration (Revell, Wehman, & Arnold, 1984).

Types of Placement Models

Four different placement approaches have been developed in relation to competitive employment of persons with handicaps. These approaches include (a) the individual placement model, (b) the clustered placement model, (c) the mobile crew model, and (d) the entrepreneurial model. Typically, group models (i.e., clustered placement, mobile crew, and entrepreneurial models) are considered appropriate only for individuals with the most

severe disabilities who require more intensive support than is provided by the individual placement model. Although hours worked per week are typically greater for employees of clustered placements or mobile work crews, mean hourly wages and level of integration are greater for workers who are individually placed (Kregel, Wehman, & Banks, 1989).

When implementing the *individual placement* model, the employment specialist locates a job in a conventional, private-sector company and places the individual with a disability on the job (Bellamy et al., 1988). Continuous on site-training is provided until the supported employee performs the job within acceptable standards. Gradually, the type and level of assistance provided by the employment specialist are decreased, although at least two contacts per month are provided for the duration of the employment (Wehman & Moon, 1988).

The *clustered placement* model (also referred to as the enclave model) differs from the individual placement model in that a group of individuals, typically fewer than 8, works in close proximity, often performing the same work. Typically, follow-up staff provide continuous training and support for the duration of employment, not just during initial training (Bellamy et al., 1988). Clustered placements are located within a community-based business referred to as the sponsoring company, and on-site support is provided through the ongoing presence of an employment specialist who serves as a work supervisor.

Mobile crews typically consist of fewer than 8 supported employees who provide specialized contract services throughout a community (Wehman & Moon, 1988). Services often are provided from a van (thus the reference to "mobile" work crew) and include janitorial or groundskeeping work. Training and continuous supervision are provided by an on-site work supervisor.

Finally, the *entrepreneurial approach* is similar to the clustered placement model; however, rather than providing janitorial or groundskeeping services, 8 or fewer supported employees may provide a specific product or service to a manufacturing company (Mithaug, Martin, Husch, Agran, & Rusch, 1988). For example, the benchwork model, developed by the Specialized Training Program at the University of Oregon, consists of a network of small electronics assembly businesses supported through subcontracts to the sponsoring agency. The sponsoring agency (usually a local adult rehabilitation agency), in turn, supplies the manpower to complete job assignments (typically only persons with disabilities) (Mank, Rhodes, & Bellamy, 1986). The entrepreneurial model serves individuals with the most severe disabilities who require intensive, continuous supervision.

Supported Employment Program Components

Supported employment should be viewed as an intervention package containing several components that contribute to its overall effectiveness (Lagomarcino, 1986; Vogelsberg, 1986; Wehman, 1986). The following essential components have been identified by Trach (in press) and Trach and Rusch (1989), as well as others (e.g., McDonnell, Nofs, Hardman, & Chambless, 1989; Wacker, Fromm-Steege, Berg, & Flynn, 1989): (a) community survey and job analysis, (b) job match and placement, (c) job training, (d) follow-up services, and (e) interagency coordination.

Usually, employment specialists conduct community surveys and job analyses to identify potential job sites by phone calls, correspondence, and personal contacts with prospective employers. Potential job sites then are observed to determine vocational and social skills that are necessary for placement in those sites.

Job match and placement involve assessing employee characteristics in relation to job requirements. That is, the employment specialist matches information obtained from the community survey and specific job analysis to potential employees' vocational and social skills assessment information to arrive at appropriate job matches. Employment options usually are made available to potential employees, who are encouraged to participate in their own placement selection. Additionally, no individual is excluded from employment (zero-reject fea-

ture), and the opportunity for job advancement and increased wages for each employee is considered as placement decisions are made.

Following placement, the employment specialist assists the supported employee in performing required job tasks. To achieve this goal, the employment specialist uses techniques such as systematic training, modifications to adapt a job to an employee's particular disability, and planning for the maintenance of work behavior acquired during training. Specifically, the employment specialist (a) conducts a task analysis of the vocational and social aspects of a job, (b) develops training strategies, (c) determines criteria for acceptable performance, (d) teaches the supported employee to perform the desired work behaviors, and (e) plans for continuance of the performance.

Finally, the employment specialist provides follow-up services to assist individuals to maintain their employment after they have acquired the necessary job skills. Typically, the amount of support required lessens over time. In addition, employment specialists often identify and enlist natural support available in the workplace, including setting variables (e.g., clocks, whistles, pictures) and co-workers, to help new supported employees remain employed.

Interagency coordination refers to the ongoing coordination of all services provided by agencies that influence job placement and retention of the supported employee. These services include training the supported employee for job placement, securing employment (job placement), maintaining the placement, and developing skills outside the workplace that promote continued employment in that placement (e.g., social skills training and travel training provided by an employee's guardian, residence supervisor, or case coordinator).

Supported Employment Program Effectiveness and Populations Served

Program effectiveness. Three recent studies have examined components of supported employment that relate to favorable employee outcomes (McDonnell et al., 1989; Trach & Rusch, 1989; Wacker et al., 1989). For example, McDonnell et al. analyzed the procedural components of their model (i.e., Utah Supported Employment Project Implementation Checklist) in relation to program outcomes. Their study revealed that comprehensive individualized program plans were associated with supported employment benefits; functional assessment and job-matching procedures were associated with higher wages and hours worked; and training procedures (e.g., job analysis, written programs, frequent progress review) were related to the long-term employment of supported employees. McDonnell et al. also found that conducting weekly staff meetings, developing a specific marketing plan, establishing formal service contracts with employers, and defining staff roles were all strongly associated with improved outcomes.

Trach and Rusch (1989) indicated that programs that implemented more employment services (i.e., components) served employees with lower IQ scores than programs offering fewer services. Specifically, Trach and Rusch found a significant positive correlation between level of disability and the number of hours spent in job development, job survey and analysis, and job matching.

Finally, Wacker et al. (1989), after investigating supported employment as an intervention package, proposed a training and posttraining package that consists of 10 components. In their study, the following 3 of the 10 components were found to be related significantly to long-term employment: (a) employee advocacy (i.e., co-worker involvement); (b) teaching collateral behavior (i.e., teaching job-related social and communicative behaviors); and (c) developing a follow-up plan.

Cost-benefit analysis of model programs. A defining characteristic of supported employment has been a consistent emphasis on employment outcomes. Historically, the success of supported employment has been measured in terms of job retention, increased earnings, and a favorable cost-benefit ratio (Rusch, Chadsey-Rusch, & Johnson, in press). Wehman and his colleagues have reported consistent and positive outcomes related to job retention, wages, and benefits versus costs (Hill &

Wehman, 1983; Hill, Wehman, Kregel, Banks, & Metzler, 1987; Wehman et al., 1979b; Wehman & Kregel, 1985). Persons in supported employment earn more than their counterparts in sheltered employment (Tines, Rusch, McCaughrin, & Conley, in press). Additionally, Noble and Conley (1987) found that supported employment programs are more productive in terms of earnings and less costly than alternatives such as adult day care, work activity centers, and sheltered workshops.

In another study, Rhodes (1982) compared vocational services for individuals with handicaps from the perspective of the direct-service recipient and concluded that the highest marginal net benefit for the direct-service recipient (the supported employee) was provided by supported employment. Hill et al. (1987) produced one of the most detailed analyses of the financial impact of supported employment on consumers. A similar analysis was presented by Hill and Wehman (1983) and Tines et al. (in press). The results of these studies provide evidence that supported employment programs yield positive benefits for persons with handicaps as well as for taxpayers.

Populations served. In spite of the clear benefits of the supported employment model, recent investigations of outcome data from supported employment programs throughout the United States indicate that few individuals with severe handicaps (the target population to be served by supported employment) are being employed with support (Kiernan, McGaughey, & Schalock, 1986; Rusch et al., in press; Wehman, Kregel, & Shafer, 1989; Kregel & Wehman, in press). For example, an investigation of 1,411 supported employees in eight states showed that 10% of employees labeled "mentally retarded" were identified as severely or profoundly mentally retarded (less than 8% of the total number of supported employees); 38% were moderately mentally retarded, 45% were mildly retarded, and 11% were borderline mentally retarded (Wehman et al., 1989). Other studies of national supported employment outcomes corroborate the finding that less than 8% of those served in supported employment are persons with severe handicaps (Kiernan et al., 1986; Rusch et al., in press; Wehman et al., 1989). Although persons with severe handicaps constitute only a small proportion of the total supported employee population, an even smaller number of persons with the behavioral characteristics indicative of severe handicaps (e.g., ambulation impairments, fine-motor impairments, challenging behaviors) are being served nationally in supported employment programs (Wehman et al., 1989).

Contributions of Applied Behavior Analysis to Supported Employment

The success of supported employment can be attributed to the early identification of relevant characteristics that continue to be addressed systematically and consistently. Thus, the rationale behind supported employment is the awareness that some individuals will remain employed if provided long-term support. This awareness came about as a result of the need to accommodate adults who previously had been excluded from traditional employment training programs (e.g., work-study programs, sheltered workshops, transition programs). Supported employment was an obvious solution to the challenge presented by persons who were defined by their inability to learn complex discriminations (e.g., responding correctly to requests to change from one work activity to another) and by a community of employers without the knowledge or resources to train a new work force (Wool, 1976).

Rather than using a "place-and-pray" approach, supported employment model program developers adopted a "place-and-train" attitude that expected continued support to be available to supported employees in the workplace (Rusch & Mithaug, 1980). As early as the mid-1970s, supported employment programs were surfacing across the country. In 1975, the University of Washington began placing and training persons with moderate and severe mental retardation into competitive food-service jobs in the Seattle metropolitan area (Rusch & Schutz, 1979). Shortly thereafter, Wehman, Rusch, and others launched similar programs in other areas of the United States (Wehman, 1981). Wehman's Project Employability (Wehman, Hill, & Koehler, 1979a), begun in 1977, achieved na-

tional recognition after Virginia Commonwealth University was awarded a rehabilitation research and training grant in 1981 that focused on employment for mentally retarded individuals.

These early programs, which contributed enormously to the development of the supported employment paradigm, incorporated applied behavior analysis (Crosson, Youngberg, & White, 1974). Notably, Bellamy et al. (1979), Rusch and Mithaug (1980), Mithaug (1978), and Wehman (1981) applied basic behavioral concepts to vocational training and competitive employment. Rusch and Mithaug (1980) and Wehman (1981) focused applied behavior analysis techniques on the problems associated with their emerging programs. These problems were new to vocational "habilitation" because prior research had been conducted in sheltered or simulated workshop settings. Thus, integrated work settings were not well understood before the mid-1970s. Although a behavioral technology existed, it was not widely disseminated and failed to address the varying expectations and demands of co-workers, supervisors, and the target employees themselves, in addition to fundamental concerns such as travel, housing, and income maintenance.

As a problem-solving approach, applied behavior analysis contributed to the early formation of the place-and-train approach. During the mid-1970s, for example, Zifferblatt and Hendricks (1974) recommended that behavioral interventions be designed to fit target environments, including an analysis of behaviors and contingencies that formed the "culture" of the target environment. Rogers-Warren (1977) also recommended an "ecobehavioral" assessment. Applied to supported employment, this approach includes (a) analyzing future settings to identify behavioral expectations, (b) placing the individual in the target setting, (c) adjusting the performance of target employees, (d) achieving concordance between the expectations of employers, co-workers, and the target employee, and (e) developing strategies for long-term behavioral adjustment. Each of these characteristics defines currently accepted components of supported employment.

Identifying expectations and achieving concordance (social validation). Application of social validation techniques (Kazdin, 1977; Van Houten, 1979; Walker & Hops, 1976; Wolf, 1978) significantly influenced supported employment. In particular, the emergence of social validation introduced methodology that helped identify the perceived value of nonsheltered employment by asking significant others (e.g., employers) to identify procedures to meet selected goals and to evaluate the outcomes achieved by implementing the procedures. Social criteria, based on expectations and opinions, ensured that applied interventions were both important to the consumer and valued by society.

Social comparison and subjective evaluation have been used to evaluate the social validity of goals (focus), procedures, and results. Typically, social comparison involves comparing a supported employee's work behavior before and after intervention with similar behavior of co-workers. Social validation is demonstrated when, after treatment, the supported employee's job performance is as valued as that of a nonhandicapped co-worker. For example, Rusch, Morgan, Martin, Riva, and Agran (1985) demonstrated that employees with moderate mental retardation could perform on the job as well as or better than nonhandicapped co-workers who performed exactly the same job duties. Similarly, subjective evaluations have been used to determine whether change resulting from the intervention is perceived as important. With regard to supported employee evaluations, supervisors often are asked to evaluate their employees' performance; persons with handicaps employed in nonsheltered work settings have been expected to meet criteria that are often higher than those expected of their nonhandicapped peers (White & Rusch, 1983).

Generalization and maintenance. The success of supported employment typically is defined in terms of length of paid employment. Numerous investigations have demonstrated that persons with handicaps can learn to perform specific job tasks and to engage in social behaviors required for employment. The long-term success of integrated employment, however, requires more than the acqui-

sition of specific behaviors. Instead, an employee also must respond to variations in the workplace that are encountered over time (Rusch, Martin, & White, 1985).

To address this issue, two interrelated components of behavior, generalization and maintenance, have been the focus of interventions in integrated employment (Berg, Wacker, & Flynn, in press). Generalization of behavior has been demonstrated when employees adjust their behavior to respond appropriately to novel stimuli encountered in the work environment. For example, Berg and Wacker (1989) taught a woman who was deaf, blind, and mentally retarded to use tactile prompts to perform a variety of packaging tasks. Training resulted in generalization of performance to different-sized envelopes, different types of fillers, and different types of tactile prompts.

Maintenance of behavior refers to demonstration of the desired behavior continually subsequent to training. Sowers, Rusch, Connis, and Cummings (1980) used clocks in the workplace to teach supported employees to manage their time on the job. Specifically, supported employees who could not tell time were taught to match clock faces displaying times to go to and from lunch and break. Continued use of the clock faces resulted in response maintenance for all 3 employees.

Future Research Areas

A number of critical issues continue to pose serious questions in relation to employment among persons with severe disabilities, particularly persons with severe mental retardation. In this section we will consider several of these issues including (a) social integration, (b) promoting employee independence, (c) cost-benefit analysis, and (d) policy issues.

Social integration. To date, research has not focused on quality of life as a result of employment integration. Indeed, quality of life is a complex construct; hence a widely agreed-upon definition does not exist (Landesman, 1986). Because we are uncertain of how to define integration, supported employment has, for example, stressed physical proximity to nonhandicapped workers. The quality of interactions with co-workers, however, has not been researched. Further, due to the limited number of investigations of supported employees' interactions with nonhandicapped co-workers, the need persists to describe the nature and type of interactions that occur between employees with and without handicaps.

The type of job placement may be the single most important factor influencing co-worker interactions. Research suggests that little or no opportunity for interaction exists when supported employees work as part of mobile crews (Rusch, Johnson, & Hughes, in press). Additionally, job type may result in different levels of integration. Most jobs held by supported employees are entry-level positions (Lagomarcino, in press) that tend to be held by persons entering the job force for the first time. Over time, these individuals gain work experience and move to occupations that are better paying and more desirable. This changing work force diminishes supported employees' opportunities to enter into long-term relationships with persons who are not handicapped. Research is needed to address the social impact of entry-level employment on, for example, friendship formation and loneliness.

Promoting employee independence. In 1979, Vogelsberg and Rusch suggested that unless supported employees are given the opportunity to manage their own behavior, make their own decisions, and experience natural consequences when they make incorrect decisions, these individuals will remain unnecessarily dependent. Rusch, Martin, and White (1985) criticized behavioral technology typically reported in the applied literature for focusing on change agents (e.g., employment specialist prompts provided to supported employees), rather than employees' acquisition of skills that promote independent performance. Promoting employee independence requires that we adopt teaching strategies that individuals can use to adapt to their roles as employees and to expectations in all performance situations. Results of recent research showing that supported employees may be active participants in promoting their own independent performance (Mithaug et al., 1988) have led to procedures that

help the supported employee acquire requisite skills including (a) making a decision, (b) performing independently, (c) evaluating performance, and (d) adjusting future performance as a result of self-evaluation (Hughes & Rusch, 1989; Mithaug et al., 1988). Future research should depart from traditional support models that foster dependent interactions between the employment specialist and the supported employee. Instead, the focus should be on developing models that permit specialists to assist employees in acquiring skills that promote independent performance.

Hughes, Rusch, and Curl (in press) have proposed a model for postplacement services that allows employment specialists to enlist natural support in the workplace in an effort to promote employee independence. Their model includes two strategies: (a) identifying natural support available in a worksite in terms of both work-related stimuli and co-worker involvement and (b) matching available support with skills in which an employee demonstrates need for continued support. For example, some employees may fail to take their breaks on time. These individuals could be taught that when co-workers leave their job stations (a setting variable) they also should take a break. Or the employment specialist may observe that a supported employee consistently is assigned the least desirable jobs in a workplace. This employee may be paired with a co-worker who has been observed to support fellow workers to prompt the supported employee to speak up for his or her rights. These strategies allow the employment specialist to transfer support of employee performance from the specialist to stimuli or significant others already present in the work environment.

Cost-benefit analysis. A sizeable amount of research has been conducted on the costs versus the benefits of supported employment. This literature has attempted to address the benefits of supported employment to society, taxpayers, and consumers. Presently, persons with borderline and mild handicaps clearly continue to outnumber employees with moderate, severe, and profound handicaps. Perhaps service providers are enrolling persons with less severe disabilities in initial efforts to build their capacity to deliver supported employment. Consequently, costs of supported employment for persons with severe handicaps may differ from those reported to date. Further, the cost of supported employment may be higher than predicted (Schneider, Martin, & Rusch, 1981) because of high levels of job turnover associated with employees with mild handicaps. The costs of supported employment have been shown to decrease substantially over time, however, when employees stabilize on the job (McCaughrin, 1988). Cost-benefit analyses that consider the costs of supported employment services related to job placement and training versus long-term support, therefore, seem warranted.

Research that identifies the costs associated with placement approaches also is needed. Currently, for example, no information is available on the costs of using group-placement versus individual-placement approaches. Hill et al. (1987) reported data that related to their efforts to place persons individually; Tines et al. (in press) aggregated costs associated with individual placements, clustered placements, and mobile work crews. An interesting finding is that the costs of mobile work crews may be exorbitant when costs associated with frequent failed businesses are included. Lagomarcino (in press) found that 33% of all supported employee job separations in Illinois resulted from temporary layoffs, failed businesses, or seasonal layoffs.

Policy issues. Supported employment, as defined in the Rehabilitation Act Amendments of 1986, is intended to benefit persons with severe handicaps. Recent evaluation of outcome data from published and unpublished studies, however, reveals that individuals with severe handicaps constitute less than 10% of the total number of individuals served by supported employment (Rusch et al., in press). Regulations for the Rehabilitation Act of 1986 emphasize that supported employment is "intended to provide services to individuals who because of the severity of their handicaps would not traditionally be eligible for vocational services" (p. 30546). Thus, there has been some failure to employ individuals for whom supported employment was established. To date, few studies have considered supported employment program char-

acteristics and their effect on the long-term employment of persons with severe handicaps. Clearly, research must be directed toward those for whom supported employment was intended.

Seekins and Fawcett (1984) described four separate policy development phases that are typical of new initiatives: agenda setting, policy development, policy implementation, and policy review. Supported employment has progressed well through the first three of these phases, with 27 states receiving state-change grants and having implemented supported employment services since 1985. Although several thousand persons with severe disabilities have gained access to rehabilitation services who otherwise would not have been eligible for services, the majority of persons who gain access appear to be those with borderline and mild mental retardation (Rusch et al., in press; Kregel & Wehman, in press). Consequently, as supported employment policy is reviewed in advance of the reauthorization of P.L. 99-506, several questions must be addressed in relation to our capacity to deliver long-term support.

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